

CLAIMS

1. Planet carrier (2) for a gearbox

- with a flange part (11) comprising a radially extending first ring-shaped disk (13), which is provided with a receptacle (15) formed by an axial offset, and an axially extending cup-shaped projection (14) extending from an inner edge of the receptacle (15),
- with a step-like cup body (12) comprising a first sleeve section (17) and a second sleeve section (18) of smaller and larger diameter, respectively, wherein the sleeve sections are connected to each other at one of each of their ends by a radially extending second ring-shaped disk (19), so that they are offset axially relative to each other, and an angled ring-shaped projection (21) located at an outer end of the first sleeve section (17),
- wherein an outer diameter of the first sleeve section (17) is adapted to an inner diameter of the receptacle (15) of the flange part (11), wherein the cup body (12) engages at a projection-side end in the radial receptacle (15) of the flange part (11) and is partially overlapped by the receptacle in an axial direction, whereby the ring-shaped projection (21) contacts the receptacle (15) of the flange part (11) in the axial direction,
- and with a ring-shaped weld connection (32) between the ring-shaped projection (21) and the receptacle (15), as well as
- recesses (27) for planet gears (4) located in the first sleeve section (17), wherein the planet gears are guided inwards through the recesses in the sleeve section (17) and engage in a sun gear (5).

2. Planet carrier (2) for a gearbox according to Claim 1, characterized in that an inner diameter (D1) of the ring-shaped projection (21) of the cup body (12) is larger than an inner diameter (D2) of the receptacle (15) of the flange part (11), whereby a thrust bearing receptacle (22) is created, in which a
5 thrust bearing (23) is arranged.

3. Planet carrier (2) for a gearbox according to Claim 1, characterized in that the second sleeve section (18) is provided with teeth (20) for brake or clutch plates.

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4. Planet carrier (2) for a gearbox according to Claim 1, characterized in that the cup body (12) is produced through non-cutting shaping of a sheet metal part.

15 5. Planet carrier (2) for a gearbox according to Claim 1, characterized in that the flange part (11) is produced through non-cutting shaping of a sheet metal part.

6. Planet carrier (2) for a gearbox according to Claim 1, characterized in that
20 aligned bore holes (25) are arranged in the first ring-shaped disk (13) of the flange part (11) and in the second ring-shaped disk (19) of the cup body (12) for holding pins (26), on which the planet gears (4) are mounted.

7. Planet carrier (2) for a gearbox according to Claim 1, characterized in that
25 the weld connection (32) between the ring-shaped projection (21) of the step-like cup body (12) and the ring-shaped receptacle of the flange part is produced by resistance welding.

8. Planet carrier (2) for a gearbox according to Claim 1, characterized in that an inner surface of the cup-shaped projection (14) is provided with inner serrated teeth (28).

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9. Planet carrier (2) for a gearbox according to Claim 1, characterized in that an inner ring (29, 31) of a free-wheel or a rolling bearing is installed on the cup-shaped projection (14) of the flange part (11).

10 10. Planet carrier (2) for a gearbox according to Claim 9, characterized in that the inner ring (29, 31) is attached with a non-positive fit on the cup-shaped projection (14) of the flange part (11).

11 11. Planet carrier (2) for a gearbox according to Claim 9, characterized in
15 that the inner ring (29, 31) is attached with a positive fit on the cup-shaped projection (14) of the flange part (11).

12. Planet carrier (2) for a gearbox according to Claim 10, characterized in
20 that the cup-shaped projection (14) of the flange part (11) is provided with external serrated teeth (30), on which the inner ring (29, 31) is installed.

13. Planet carrier (2) for a gearbox according to Claim 9, characterized in that the inner ring (29) of a rolling bearing is formed with a solid form.

25 14. Planet carrier (2) for a gearbox according to Claim 9, characterized in that the inner ring (31) of a rolling bearing comprises a cup body with two rims produced with a non-cutting method.